Nithish Chouti

+91 9493865924 | Hyderabad | nithishchouti2003@gmail.com | linkedin-nithishchouti | github-nithishchouti

Education

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
BTech. Computer Science and Engineering	Indian Institute of Information Technology (IIIT), Dharwad, Karnataka	CGPA: 8.97	Expected May 2025
Senior Secondary (12th)	Delhi Public School, Nacharam, Telangana	Percentage: 96.4%	April 2021
Secondary (10th)	Delhi Public School, Nacharam, Telangana	Percentage: 96%	April 2019

Experience

Research Intern June 2024 – August 2024

National Institute of Technology *Sikkim, Assam*

- Collaborated with a team of four on a Video2Music generator, a multimodal learning project, utilizing LSTM and GRU architectures.
- Enhanced model performance through meta-heuristic optimization techniques, including Particle Swarm Optimization and Ant Colony Optimization.
- Achieved a 2% increase in model accuracy by fine-tuning hyperparameters, deepening understanding of multimodal learning processes.

Summer Research Intern May 2024 – July 2024

Indian Institute of Technology, Hyderabad *Telangana*

- Contributed to the development of semantic segmentation models for the project "Vision Capabilities for a Bi-Pedaled Robot" under Prof. Sumohana S. Channappayya.
- Conducted in-depth research on segmentation architectures, ultimately selecting the DeepLabv3+ model based on project requirements and performance metrics.
- Analyzed and compared various MobileNet backbones to identify the optimal model based on accuracy and inference time, enhancing overall segmentation efficiency.

Research Intern December 2023 – February 2024

Indian Institute of Information Technology, Sri City *Andhra Pradesh*

- Contributed to research in autonomous navigation, focusing on obstacle avoidance under the guidance of faculty mentor Dr.Prabhu Prasad and Dr. Pavan Kumar.
- Collaborated as a team to set up ROS noetic environment and Turtlebot3 waffle pi model in real life as well as on Gazebo simulation.
- After detailed research and analysis, implemented A* algorithm as a global planning algorithm and DWA local path planning algorithm which efficiently avoided obstacles.

Technical Projects

Multimodal Information Retrieval Using Text and Image August - November 2024

- Collaborated with a 5-member team to build a multimodal retrieval system enabling text and image-based search, with advanced deep learning models (Sentence Transformers and Vision Transformers) for vector embedding.
- Utilized Elasticsearch for efficient indexing, improving search scalability and response time for large-scale queries.
- Conducted rigorous testing to optimize system precision, query processing speed, and user experience.

Question Generation using Generative AI for Reading Comprehension September 2024 - November 2024

- Collaborated with a team of four to develop an AI-powered system using the Llama 3.1 model to generate varied question types (open-ended, MCQs, fill-in-the-blank) for reading comprehension assessments.
- Integrated NLP techniques like Sense2Vec and Named Entity Recognition (NER) to improve question relevance and accuracy.
- Enhanced model performance through iterative evaluation, achieving precision of 73%, recall of 87%, and incorporating human feedback.

Cardio Vascular Disease Prediction using Machine Learning Algorithms February 2024 – May 2024

- Processed an IEEE dataset on Heart disease parameters and predicted the possibility of diagnosing the disease.
- Used different algorithms like SVM, Neural Networks, Random Forest and XG Boost and achieved the best accuracy of 89.5% through Random Forest Classifier.
- Designed a Streamlit app for the Prediction of CVD and dashboard to show the statistics observed in the dataset.

Publications

1. N. Chouti, S. Kusale, S. Mishra, S. Rajora, P. Prasad, B. B. Sinha, and M. K. V., "Enhancing Multi-Criteria Recommendation Systems with Hot Deck Imputation and User-Specific Similarity Measures," in *Proc. 2nd Int. Conf. on Artificial Intelligence: Theory and Applications (AITA)*, 2024.
2. N. Chouti, S. Kusale, S. Mishra, S. Rajora, P. Prasad, B. B. Sinha, and M. K. V., "Deep Learning-Based Multi-Criteria Recommender System: Leveraging Autoencoders for Improved Personalization," in *Proc. 1st Int. Conf. on Computing, Sciences & Communications (ICCSC)*, 2024.
3. R. Kherudkar, S. Tiwari, U. Vedantham, N. Chouti, P. Prasad B. M., P. Kumar B. N., and M. K. Vanahalli, "Implementation and Comparison of Path Planning Algorithms for Autonomous Navigation," in *Proc. 2nd IEEE Conf. on Engineering Informatics (ICEI)*, 2024.
4. U. Vedantham, N. Chouti, K. Naik, and S. C. K., "Heart Health Insights: Analysing Data and Visualising Predictive Factors for Cardiovascular Disease," in *Proc. 2nd IEEE Conf. on Engineering Informatics (ICEI)*, 2024.

Community & Leadership

Non Technical Lead August 2023 – August 2024
Google Developer Student Club *Dharwad, Karnataka*

- Fostered a collaborative and inclusive environment by working with technical leads to ensure a balanced range of events, encouraging team members to contribute their unique skills and perspectives.
- Served as the backbone of the club, orchestrating successful events with a team of eleven skilled individuals.
- Organized events attended by over 150 students, showcasing effective leadership and organizational prowess.

Vice President August 2022 – December 2023
Entrepreneurship Cell (E-Cell) *Dharwad, Karnataka*

- Collaborated with the team to develop and implement the strategic vision and goals of the E-Cell towards entrepreneurship.
- Encouraged and facilitated student participation in entrepreneurship-related activities.
- Successfully organized The Shark Tank 2.O, annual pitching event of the club and mentored support for the plan and execution of their ideas along with the team.

Technical & Soft Skills

Languages: Python, C, Java, HTML, CSS, JavaScript.
Operating Systems: Linux, MS Windows, Android, ROS.
Libraries: Javascript, Numpy, Matplotlib, Scipy, Pytorch, Keras, Pandas, Seaborn.
Developer Tools: PyCharm, Visual Studio Code, Google Colab, Spyder, MySQL, GitHub.
Soft Skills: Communication, Management, Leadership, Teamwork, Planning and Coordinating, Problem solving, Adaptability, Presentation skills.

Certifications

Google Professional Project Management (Coursera) January 2025
Machine Learning by DeepLearning.AI (Coursera) June 2024
J.P. Morgan Software Engineering Virtual Experience on Forage November 2023
JPMorgan Chase & Co. Agile Job Simulation on Forage November 2023

Additional Activities/Achievements

- Participated as an active member of the National Cadet Corps (NCC), fostering community engagement, teamwork, and leadership through various camps and activities, including yoga and plantation drives.
- Secured 2 Bronze Medals in Relay and Triple Jump at the Inter IIIT Sports Meet (2022, 2023), showcasing athletic excellence.
- Won two bronze medals in the Freedom Run 2.0 and 3.0 and achieved Runner-Up position in the Dharwad District Basketball Competition, promoting sportsmanship and physical fitness.
- Successfully hosted, managed and anchored events like Habba Cultural Fest, Intra Sports Meet, etc. in the institute.